

REMARKS

In the Office Action, claims 1-8 were rejected, claims 9-26 were allowed and claims 9-11 and 21 was objected to because of certain informalities. By the present response, claims 1, 9-11 and 21 are amended and new claims 27-28 have been added. Upon entry of the amendments, claims 1-28 will remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Objections to the Claims

Claims 9-11 and 21 were objected to because of certain informalities. Claims 9-11 and 21 have been amended by the present response to correct these informalities in accordance with the Examiner's suggestions.

Rejections Under 35 U.S.C. § 102

In the Office Action, claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Picard et al., U.S. Patent No. 5,442,674 (hereinafter "Picard"). A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Applicants respectfully assert that the present invention, as recited in amended independent claim 1 is patentable over the Picard reference. Independent claim 1 is amended to more clearly point out certain of the claimed subject matter. Specifically, the independent claim 1 now recites *markers being spaced axially along the supporting structure and along a central axis of the supporting structure or circumferentially over not more than a revolution about the supporting structure*.

The Picard reference discloses a phantom constituted by a helix that enables an automatic geometrical calibration of any X-ray imaging system that uses a planar detector (see, abstract and FIG. 1 and FIG. 3). However, in all embodiments of Picard, the

markers are shown circumferentially over more than one revolution of helix about the supporting structure. Moreover, in none of the embodiments are the markers shown to be linearly arranged along the central axis of the supporting structure. Further, Picard fails to disclose markers being placed at varying radial depth within the supporting structure. Applicants respectfully submit that the phantom for a volumetric computed tomography system described in the present application comprises markers spaced apart from one another axially along the supporting structure and along a central axis of the supporting structure (*see*, Fig. 3) or circumferentially over not more than a revolution about the supporting structure (*see*, Fig. 5, Fig. 7 and Fig. 9). Additionally, in certain embodiments the markers are either on or at varying radial depth in the supporting structure.

At least because Picard do not disclose or suggest a phantom for a volumetric computed tomography system comprising of markers that are spaced apart from one another axially along the supporting structure and along a central axis of the supporting structure or circumferentially over not more than a revolution about the supporting structure as claimed, the reference cannot support a *prima facie* case of anticipation of claim 1. Claims 2-4 depend directly or indirectly from claim 1. Accordingly, the Applicants submit that claims 2-4 are allowable by virtue of their dependency from an allowable base claim. Applicants also submit that the dependent claims are further allowable by virtue of the subject matter they separately recite. Thus, it is respectfully requested that the rejection of claim 1-4 under 35 U.S.C. §102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Picard in view of Close et al., U.S. Patent No. 6,000,847. Claims 6-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Picard in view of Mitschke et al., U.S. Patent No. 6,715,918. As discussed above, the Picard reference does not teach, suggest or disclose each and every aspect of Applicants recited invention as claimed in the amended independent claim 1. Claims 5-8 depend directly or

indirectly from claim 1, and are allowable by virtue of such dependency, as well as for the subject matter they separately recite. Thus, it is respectfully requested that the rejection of claims 5-8 under 35 U.S.C. §103(a) be withdrawn.

New Claims 27-28

Claim 27 recites a plurality of discrete, essentially opaque markers spaced apart from one another on or in said supporting structure, the markers being spaced linearly along a central axis of the supporting structure. As discussed above, Picard fails to disclose or suggest the markers being spaced linearly along the central axis of the supporting structure. Claim 27 is therefore considered to be allowable.

Claim 28 recites a plurality of discrete, essentially opaque markers spaced apart from one another at varying radial depth within said supporting structure. As discussed above, Picard fails to disclose or suggest the markers being placed at varying radial depth within the supporting structure. Claim 28 is therefore considered to be allowable.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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